**Linux Command**

Here is a list of 30 essential Linux commands along with a brief explanation of each.

1. **ls**
   * Lists the contents of a directory.
   * ls -l for detailed list, ls -a to include hidden files.
2. **cd**
   * Changes the current directory.
   * cd /path/to/directory to navigate to a specific directory.
3. **pwd**
   * Prints the current working directory.
4. **mkdir**
   * Creates a new directory.
   * mkdir new\_directory\_name.
5. **rmdir**
   * Removes an empty directory.
   * rmdir directory\_name.
6. **touch**
   * Creates a new empty file or updates the timestamp of an existing file.
   * touch filename.
7. **cp**
   * Copies files or directories.
   * cp source destination, cp -r source\_directory destination\_directory for recursive copy.
8. **mv**
   * Moves or renames files or directories.
   * mv old\_name new\_name.
9. **rm**
   * Removes files or directories.
   * rm filename, rm -r directory\_name for directories.
10. **cat**
    * Concatenates and displays file content.
    * cat filename.
11. **less**
    * Views file content one screen at a time.
    * less filename.
12. **head**
    * Displays the first few lines of a file.
    * head -n 10 filename to show the first 10 lines.
13. **tail**
    * Displays the last few lines of a file.
    * tail -n 10 filename to show the last 10 lines.
14. **uname**
    * Prints system information.
    * uname -a for all details.
15. **top**
    * Displays system tasks.
    * Press q to quit.
16. **df**
    * Shows disk space usage.
    * df -h for human-readable format.
17. **du**
    * Displays disk usage of files and directories.
    * du -sh directory\_name for a summary in human-readable format.
18. **free**
    * Displays memory usage.
    * free -h for human-readable format.
19. **chmod**
    * Changes file permissions.
    * chmod 755 filename.
20. **chown**
    * Changes file ownership.
    * chown user:group filename.
21. **ping**
    * Tests connectivity to another host.
    * ping hostname.
22. **ifconfig**
    * Configures network interfaces (older command, replaced by ip).
    * ifconfig.
23. **wget**
    * Downloads files from the web.
    * wget http://example.com/file.
24. **scp**
    * Securely copies files between hosts.
    * scp source user@destination:/path.
25. **ps**
    * Displays current processes.
    * ps aux for detailed process information.
26. **kill**
    * Terminates processes.
    * kill PID.
27. **killall**
    * Terminates all processes by name.
    * killall process\_name.
28. **grep**
    * Searches for patterns in files.
    * grep 'pattern' filename.
29. **find**
    * Searches for files and directories.
    * find /path -name filename.
30. **awk**
    * Text processing and data extraction tool.
    * awk '{print $1}' filename to print the first column of a file.